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## REMARKS

Claims 1-20 and 41-62 have been canceled in this amendment. Claims 63-102 have been added. Hence, claims 63-102 are pending in the application.

Claims 1-20 and 41-62 are rejected under 35 U.S.C 103(a) as being unpatentable over U.S. Patent No. 6,434,544, hereinafter Bakalash, in view of U.S. Patent No. 5,394,724, herein Earle. However, given these claims have been canceled, these rejections have been rendered moot.

## Claim 63

Claim 63, as amended, requires:

- a database server receiving a database query that includes a first array reference that symbolically references an array that has one or more indexes;
- wherein the array addresses, as a cell of the array, a certain row and a first column of a relational structure;
- wherein each index of said one or more indexes corresponds to another column different than said first column;
- wherein a first index of said one or more indexes corresponds to a first column; wherein the first array reference specifies a first index expression for the first index; wherein the first index expression of the first array reference corresponds to a first

value in said first column;

- wherein the database query specifies an operation based on the first array reference; and
- in response to receiving said database query, the database server executing the database query by performing steps that include performing said operation specified in said database query.

Claim 63, requires an array reference that "addresses, as a cell of the array, a ... row and a ... column of a relational structure". A database query with such an array reference is not disclosed or suggested in any way by Bakalash or Earle.

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The following database query Q1 (Specification, page 11) is provided as example to aid in understanding the type a database query and array reference required by claim 63. The example is provided for purposes of illustration and is not in any way limiting.

```
Q1 select r, p, t, sum(m) as s, count(m) as c from fact group by r, p, t partition by r dimension by p, t upsert (

s[p='wine', t=2000] = s[p='wine', t=1999], s[p='beer', t=2000] = s[p='beer', t=1998] + s[p='beer', t=1999])
```

Query Q1 contains the "array reference" s[p='wine', t=2000] which addresses a column sum(m) in a row of the result set of Q1 as a cell of array s. The expression p='wine' is a "first index expression" of a "first index" of array s. The "first index" corresponds to a "first column" p and the "first index expression" corresponds to the value 'wine', a value in column p. The particular row and column addressed by the "array reference" s[p='wine', t=2000] is the row in the result set with value 'beer' for column p and the value 2000 for column t.

A database query with an array reference like the example or the array reference claimed is not disclosed or suggested by the cited art, and in particular, Bakalash or Earle.

## **Dependant Claims**

The pending claims not discussed so far are dependant claims that depend on an independent claim that is discussed above. Because each of the dependant claims include the limitations of claims upon which they depend, the dependant claims are patentable for at least those reasons the claims upon which the dependant claims depend are patentable. Removal of the rejections with respect to the dependant claims and allowance of the dependant claims is respectfully requested. In addition, the dependent claims introduce additional limitations that independently render them patentable. Due to the fundamental

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difference already identified, a separate discussion of those limitations is not included at this time.

For the reasons set forth above, Applicant respectfully submits that all pending claims are patentable over the art of record, including the art cited but not applied. Accordingly, allowance of all claims is hereby respectfully solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

Dated: March 25, 2005

Marcel K. Bingham Reg. No. 42,327

2055 Gateway Place, Suite 550 San Jose, CA 95110

Telephone No.: (408) 414-1080 ext.206

Facsimile No.: (408) 414-1076

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